



BROAD AGENCY ANNOUNCEMENT (BAA)

INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2). A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

The Office of Naval Research (ONR) will not issue paper copies of this announcement. The ONR reserves the right to select for award all, some, or none of the proposals in response to this announcement. The ONR reserves the right to fund all, some, or none of the proposals received under this BAA. ONR provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

I. GENERAL INFORMATION

1. Agency Name -

Office of Naval Research
One Liberty Center
875 North Randolph Street, Site 1425
Arlington, VA 22203-1995

2. Research Opportunity Title -

Science & Technology Development of a Variable Load & Ride Height Suspension System for Existing and Future Military Vehicles, including the Family of Joint Light Tactical Vehicles

3. Program Name –

Not Applicable

4. Research Opportunity Number –

ONR BAA – 06-020

5. Response Date -

Full Proposals are due no later than 2:00 p.m. EDT on 24 July 2006

6. Research Opportunity Description –

6.1 Background:

In response to an operational need and an aging fleet of light tactical wheeled vehicles, the Joint Services have developed a requirement for a family of new tactical wheeled vehicles. This vehicle will provide increased force protection, survivability, and improved capacity over the current up-armored High Mobility Multi Wheeled Vehicle (HMMWV) while balancing mobility and transportability requirements with total ownership costs. The collection of variants is known as the Joint Light Tactical Vehicle (JLTV) Family of Vehicles. The five (5) Mission Role Vehicles (i.e. common platform(s) configured to perform a particular mission) are defined as follows: 1) Combat Tactical Variant 2) Command and Control Variant 3) Utility Variant 4) Light Infantry Squad Carrier Variant and 5) Reconnaissance Variant and shall also include compatible trailers. These 5 Mission Role Vehicles track to the 5 task oriented gaps in current joint service light tactical mobility that have been identified through JCIDS analysis: (1) Move mounted infantry/combat arms forces; (2) Move mounted Combat Service forces; (3) Move mounted Combat Service Support forces; (4) Move Light Infantry (Airborne/Air Assault) and (5) Move reconnaissance forces undetected.

The JLTV and other future military vehicles will be designed with basic organic armor protection (“A” kit) but must also accommodate an add-on armor protection system (“B” kit) that may be installed by the vehicle occupants. Since these vehicles will be required to accommodate a substantial payload, their Gross Vehicle Weight (GVW) can vary substantially from the “A” kit, unloaded condition, to the “B” kit, fully loaded condition. This can cause undesirable effects on unladen vehicle ride quality and undesirable changes in body height. Additionally, challenging ship and aircraft transportability interface requirements and the desire to raise the vehicle for blast mitigation may

necessitate a variable body height. Lastly, there is a need to mitigate rollover accidents which may necessitate built-in stability control systems.

The lack of flexibility in the ride height suspension on military vehicles is a persistent issue with many vehicle types. The research and development desired is expected to raise the performance levels and adjustability of suspension systems in multiple future vehicle designs. It is anticipated that much of the technology to be captured from this effort can first be refined through use in the JLTV program.

It is understood that contractor proprietary information may be utilized in the execution of these efforts. All information and data that result from this program will be restricted to Government use only.

6.2 Requirement and Objective:

The Office of Naval Research, in concert with the Army and Marine Corps, is soliciting proposals in the area of advanced new and novel military wheeled vehicle suspension systems consisting of new scientific and technical approaches. The overall goal would be to design, develop and demonstrate an advanced suspension system that could be utilized on a number of future military systems including the JLTV family of vehicles. Tasks expected to be performed are as follows:

- JLTV and Suspension System Documentation Review
- Technology Development and Trade-offs
- Modeling and Simulation and Performance Analysis
- Develop Conceptual, Preliminary, & Detailed Designs of a Suspension System
- Generate Final Report and Recommendations
- Fabricate and Test One Full Scale Suspension Assembly (one vehicle corner)
- Accommodate a range of vehicle weights from 13,000 to 22,000 lb
- Assess the possible commonality of suspension components in a range of vehicles including the JLTV family.

The suspension system must be capable of satisfying as many of the following goals as the technology will allow:

- Provide automatic and manual ride height adjustment
- Provide automatic load-leveling capability
- Maintain acceptable ride quality during all load conditions
- Provide stability control (roll, pitch, yaw, bounce)
- Accommodate Central Tire Inflation System
- Survive marine/salt fog environment
- Survive 60 inch fording depth
- Make low parasitic & integration demands on host vehicle
- Be adaptable to varying chassis & hull configurations

- Accommodate modern braking systems
- Be scalable to accommodate four and six wheeled vehicles
- Be rugged & reliable
- Have low system cost

Innovative and novel technologies and strategies and the judicious use of advanced technology informed by a measured decision-making process will be required.

These science and technology efforts are not related to a specific program of record or hardware procurement but will be used to advance the state-of-the-art and increase our knowledge base relative to the trades and technologies being developed. The results from this accelerated effort will be used to support existing vehicle needs and also an envisioned phased joint service program and help define a common set of future vehicle requirements. There are no planned options or follow-on phases beyond the eight (8) month effort outlined here.

7. Points of Contact -

Questions of a technical nature shall be directed to the Technical Point of Contact, as specified below:

Science and Technology Point of Contact:

Mr. Jeff Bradel
Program Officer
Office of Naval Research
One Liberty Center
875 North Randolph Street, Suite 1425
Arlington, VA 22203-1995

Telephone Number: (703)-588-2552
Facsimile Number: (703)-696-2611
Email Address: bradelj@onr.navy.mil

Questions of a business nature shall be directed to the Business Point of Contact, as specified below:

Business Point of Contact:

Julie DeStefano
Contract Specialist
Code ONR 0253
Office of Naval Research
One Liberty Center
875 North Randolph Street, Suite 1425
Arlington, VA 22203-1995

Telephone Number: (703)-696-7826

Facsimile Number: (703)-696-3365
Email Address: destefj@onr.navy.mil

8. Instrument Types -

It is anticipated that all awards resulting from this announcement will be contracts.

9. Catalog of Federal Domestic Assistance (CFDA) Numbers -

Not Applicable

10. Catalog of Federal Domestic Assistance (CFDA) Titles -

Not Applicable

11. Other Information:

Not Applicable

II. AWARD INFORMATION

Anticipated Award Information is as follows:

Estimated Total Amount of Funding Available: \$1,000,000. It is estimated that each contractor would be provided approximately \$500K to perform this effort.

Total Amount of Funding Available for each Fiscal Year: FY 2006: \$300K initial funding
upon award
FY 2007: \$700K anticipated

Anticipated Number of Awards: 2

Anticipated Award Types: Awards will be in the form of CPFF contracts

Anticipated Period of Performance: 8 months

III. ELIGIBILITY INFORMATION

This solicitation is open to all responsible sources other than Government entities and Federally Funded Research and Development Centers (FFRDCs).

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process -

Full Proposals - The due date for receipt of Full Proposals is 2 p.m. (EDT) on 07/24/2006. It is anticipated that final selections will be made by 07/31/2006. As soon as the final proposal evaluation process is completed, the Offeror will be notified via email or letter of its selection or non-selection for an award. Proposals exceeding the page limit may not be evaluated.

2. Content and Format Full Proposals -

The Proposals submitted under this BAA shall be unclassified. Confidential/classified proposals are not permitted and will not be accepted or considered for award. The Proposal submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

Full Proposal Format – Volume 1 - Technical Proposal / Volume 2 - Cost Proposal

- Paper Size – 8.5 x 11 inch paper
- Margins – 1” inch
- Spacing – 1.5 or double-spaced
- Font – Times New Roman, 12 point
- Number of Pages – Volume 1 is limited to no more than 35 pages. There is no page limit for Volume II. Limitations within sections of the proposal are indicated in the individual descriptions shown below. The cover page, table of contents, and resumes are excluded from the page limitations. Full Proposals exceeding the page limit may not be evaluated.
- Copies – one (1) original, five (5) copies and one (1) electronic copy on CD-ROM, (in Microsoft® Word and Excel 97 compatible).

Full Proposal Content

Volume 1: Technical Proposal

The Technical Proposal shall contain the following:

- **Cover Page:** This should include the words “Technical Proposal” and the following:
 - 1) BAA number;
 - 2) Title of Proposal;
 - 3) Identity of prime Offeror and complete list of subcontractors, if applicable;

- 4) Technical contact (name, address, phone/fax, electronic mail address)
- 5) Administrative/business contact (name, address, phone/fax, electronic mail address) and;
- 6) Duration of effort
- 7) Cover page must be signed and dated

- **Table of Contents:** Section, Title and page numbers are required.
- **Technical Approach:** (10 pages) A description of the technical problem, program objectives, how offeror's approach improves on what is currently available, proposed technical solution, testing and validation approach and criteria, and expected benefits to current and future military vehicles.
- **Statement of Work:** (10 pages) A Statement of Work (SOW) clearly detailing the scope and objectives of the effort and the technical approach. It is anticipated that the proposed SOW will be incorporated as an attachment to the resultant award instrument. To this end, proposals must include a severable self-standing SOW without any proprietary restrictions, which can be attached to the contract or agreement award. Include a detailed listing of the technical tasks/subtasks organized by month.
- **Project Schedule and Milestones:** (2 pages) A summary of the schedule of events and milestones.
- **Assertion of Data Rights:** (Not included in page limitations) Include here a summary of any proprietary rights to pre-existing results, prototypes, or systems supporting and/or necessary for the use of the research, results, and/or prototype. Any data rights asserted in other parts of the proposal that would impact the rights in this section must be cross-referenced. If there are proprietary rights, the Offeror must explain how these affect its ability to deliver research data, subsystems and toolkits for integration. Additionally, Offerors must explain how the program goals are achievable in light of these proprietary limitations. If there are no claims of proprietary rights in pre-existing data, this section shall consist of a statement to that effect. Data rights should be asserted in accordance with DFARS 252.227-7013 or its alternate. The full text of this clause may be assessed electronically at the following web address:

http://farsite.hill.af.mil/farsite_script.html

- **Deliverables:** (1 page) A detailed description of the results and products to be delivered, to include program technical interchange meetings and reviews (including those identified under Section VI- Award Administration Information, paragraph 2, entitled "Program Deliverables and Reporting").

- **Management Approach:** (6 pages) A discussion of the overall approach to the management of this effort, including brief discussions of the total organization, use of personnel, project/function/subcontractor relationships, government interfaces, and planning/scheduling/control practices. Identify which personnel and subcontractors (if any) will be involved. Include a description of the facilities that are required for the proposed effort with a description of any Government Furnished Equipment/Hardware/Software/Information required, by version and/or configuration.
- **Personnel:** (Not included in page limitations) The offeror shall provide resumes of proposed key personnel to be utilized by the contractor/subcontractor in the performance of this contract. The offeror shall ensure that the proposed personnel are fully capable of performing in an efficient, reliable and professional manner.
- **Past Performance :** (6 Pages) A detailed description of similar effort performed on past Government or privately funded programs, especially as it pertains to military wheeled vehicle suspension system design, development, and testing.

VOLUME 2: Cost Proposal

The Cost Proposal shall consist of a cover page and two parts. Part 1 shall provide a detailed cost breakdown of all costs, by cost category, by calendar, or Gov't fiscal year and Part 2 will provide a cost breakdown by task/sub-task, corresponding to the task numbers in the proposed Statement of Work. Options must be separately priced.

Cover Page: The use of the SF 1411 is optional. The words “Cost Proposal” should appear on the cover page in addition to the following information:

- BAA number
- Title of Proposal
- Identity of prime Offeror and complete list of subcontractors, if applicable
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address) and
- Duration of effort (separately identify basic effort and any proposed options)
- Names, phone numbers and e-mail addresses of DCMA and DCAA Points of Contacts; and
- Whether the proposal includes DCAA approved Forward Pricing Rate Agreement (FPRA) direct and indirect rates.

Part 1: Detailed breakdown of all costs, by cost category, by calendar, or Gov't fiscal year:

- Direct Labor – Individual labor category or person, with associated labor hours and unburdened direct labor rates
- Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. (Must show base amount and rate)
- Travel – Number of trips, destination, duration, etc.
- Subcontract – A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by the subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror's cost proposal or will be requested from the subcontractor at a later date
- Consultant – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate
- Materials should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief description of the Offeror's procurement method to be used (Competition, engineering estimate, market survey, etc.)
- Other Directs Costs, particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. (Justifications must be provided when Government funding for such items is sought). Include a brief description of the Offeror's procurement method to be used (Competition, engineering estimate, market survey, etc.)
- Fee/Profit including fee percentage.

Part 2 : Cost breakdown by task/sub-task using the same task numbers in the Statement of Work.

2. Significant Dates and Times-

Anticipated Schedule of Events *		
Event	Date (MM/DD/YEAR)	Time (EDT)
Full Proposals Due Date	07/24/2006	2:00 p.m.
Notification of Selection for Award	*07/31/2006	2:00 p.m.
Contract Awards	*10/31/2006	2:00 p.m.
Kickoff Meeting (DC Area)	14 Days After Contract Award	

***These dates are estimates as of the date of this announcement.**

4. Submission of Late Proposals –

Any proposal, modification, or revision, that is received at the designated Government office after the exact time specified for receipt of proposals is “late” and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and

- (a) If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or
- (b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government’s control prior to the time set for receipt of proposals; or
- (c) It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The contracting officer must promptly notify any offeror if its proposal, modifications, or revision was received late and must inform the offeror whether its proposal will be considered.

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Thus it is recommended that any hard-copy proposal be mailed several days before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

5. Address for the Submission of Full Proposals –

Office of Naval Research
Attn: Mr. Jeff Bradel
Room 1162
One Liberty Center
875 North Randolph Street, Suite 1425
Arlington, VA 22203-1995
Telephone Number: (703) 588-2552

NOTE: PROPOSALS SENT BY FAX OR E-MAIL WILL NOT BE CONSIDERED.

V. EVALUATION INFORMATION

1. Evaluation Criteria –

Criteria for Selecting Proposals, their Relative Importance, and the Method of Evaluation

The following evaluations will be conducted using the following criteria. Criteria A-D are listed in descending order of importance. Any subcriteria listed under a particular criterion are of equal importance to each other:

- A. Overall technical merit
 - 1. The soundness of technical concept
 - 2. The soundness of system integration
- B. Programmatic relevance of the proposal
- C. Offeror's capabilities, related experience, facilities and past performance, including the qualifications, capabilities and experience of the principal investigator and key personnel.
 - 1. The quality of the technical personnel proposed
 - 2. The Offeror's experience in relevant efforts with similar resources
 - 3. The ability to manage the proposed effort
- D. Realism of the proposed cost and extent to which the cost effectiveness of the proposed research is diminished by expenditures for excessive administrative and overhead expenses

For proposed awards to be made as contracts to large businesses, the socio-economic merits of each proposal will be evaluated based on the extent of the Offeror's commitment in providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, HUBZone small businesses, veteran-owned small businesses, service disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions.

2. Evaluation Panel -

Government technical experts from the Office of Naval Research, Army, and the Marine Corps, and possibly other Federal entities, will perform the evaluation of proposals. The Government may use selected non-government personnel or support contractor personnel to assist in the administrative handling of any proposals ensuing from this solicitation. If called upon, they may provide technical assistance to the Government evaluation panel. Such non-government personnel will be bound by appropriate non-disclosure agreements to protect proprietary and source-selection information.

VI. AWARD ADMINISTRATION INFORMATION

1. Administrative Requirements –

- The North American Industry Classification System (NAICS) code – The North American Industry Classification System (NAICS) code for this announcement is 54710 with a small business size standard of 500.
- CCR - Successful Offerors not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to award of any grant, contract, cooperative agreement, or other transaction agreement. Information on CCR registration is available at <http://www.onr.navy.mil/02/ccr.htm>.
- Certifications – Proposals should be accompanied by a completed certification package that can be accessed on the ONR Home Page at Contracts & Grants. For contract proposals, the certification package is entitled, "[Representations and Certifications for Contracts](#)."
- Online Representations and Certifications Application (ORCA) - In addition to the submission of ONR specific Representations and Certifications, successful offerors not already registered in ORCA will be required to register prior to award of any contract. Information on ORCA registration is available at <http://orca.bpn.gov>.
- Subcontracting Plans - Successful contract proposals that exceed \$500,000, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9, prior to award.

2. Program Deliverables and Reporting -

The following deliverables, primarily in contractor format, are anticipated as necessary. However, specific deliverables should be proposed by each Offeror and finalized with the contracting agent:

- Monthly Technical and Financial Progress Reports
- Component & System Test Plan report
- Presentation Material, to include Trade-Studies

- Design Reports
- Performance Specifications and Technical Data
- Test Reports
- Final Report

VII. OTHER INFORMATION

1. Government Property/Government Furnished Equipment (GFE) and Facilities

Each proposer must provide a very specific description of any equipment/hardware that it needs to acquire to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award. Also, this description should identify the component, nomenclature and configuration of the equipment/hardware that it proposes to purchase for this effort. It is the Government's desire to have the contractors purchase the equipment/hardware for deliverable items under their contract. The purchase on a direct reimbursement basis of special test equipment or other equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis. Maximum use of Government integration, test, and experiment facilities is encouraged in each of the offeror's proposals.

Government research facilities and operational military units are available and should be considered as potential government furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for the Science & Technology Development of a Variable Load & Ride Height Suspension System for the Family of Joint Light Tactical Vehicles. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should explain which of these facilities they recommend.

2. Use of Animals and Human Subjects in Research

If animals are to be utilized in the research effort proposed, the Offeror must complete a DoD Animal Use Protocol with supporting documentation (copies of AAALAC accreditation and /or NIH assurance, IACUC approval, research literature database searches, and the two most recent USDA inspection reports) prior to award. Similarly, for any proposal that involves the experimental use of human subjects, the Offeror must obtain approval from the Offeror's committee for protection of human subjects (normally referred to as an Institutional Review Board, (IRB)). The Offeror must also provide NIH (OHRP/DHHS) documentation of a Federal Wide Assurance that covers the proposed human subjects study. If the Offeror does not have a Federal Wide Assurance, a DoD Single Project Assurance for that work must be completed prior to award. Please see <http://www.onr.navy.mi./02/howto.htm> for further information.

3. Department of Defense High Performance Computing Program

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S & T and DT & E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, and assistance instruments may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpcmo.hpc.mil/>.